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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/699,899

Filing Date: November 03, 2003

Appellant(s): KIMBRELL ET AL.

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Robert M. Lanning  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the Appeal Brief filed October 21, 2008, appealing from the Office action mailed July 16, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the Brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the Brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the Brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: "The rejection of claim 12 under 35 USC 103(a) as allegedly unpatentable over the Wang '663 patent in view of US Patent No. 5,573,533 (McBride et al.)," as cited in the Brief, page 4, 3<sup>rd</sup> paragraph, should read "...over the Wang '663

patent in view of the Rearick '689 and Rearick '072 patents in further view of US Patent No. 5,573,533 (McBride et al.)." See the Office Action (07/16/07), section 8.

### **(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

### **(8) Evidence Relied Upon**

US 5,908,663	Wang et al.	06/01/1999
US 2002/0064639	Rearick et al.	05/30/2002
US 2004/0058072	Rearick et al.	03/25/2004
US 6,451,717	Fitzgerald et al.	09/17/2002
US 5,573,553	McBride et al.	11/12/1996

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

- A. Claims 7, 9-11, 13-17, 50, and 51 stand rejected under 35 USC 103(a) as being unpatentable over US 5,908,663 issued to Wang et al. in view of US 2002/0064639 and/or US 2004/0058072, both issued to Rearick et al.

Wang discloses a treatment for carpets comprising inorganic particles and a fluorochemical or other optional organic additive (abstract). Carpets so treated have improved soil resistance (abstract). The inorganic particles may be oxides or basic metal salts, such as

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silica, titanium, zirconium, or aluminum compounds (col. 3, lines 52-col. 4, line 6). Exemplary average particle sizes range from 5-100 nm (col. 4, line 50-col. 5, line 44). The various organic additives include repellent fluorochemicals, such as fluorochemical acrylates (col. 7, line 59-col. 8, line 49 and col. 9, line 48 – col. 10, line 3) and stainblockers, such as sulfonated novolac resins, acrylic resins, and styrene/maleic anhydride copolymers (col. 7, lines 1-6 and 27-58). Said organic additives may perform more than one function (col. 7, line 18). The fluorochemical repellent treatment preferably is present in an amount of at least 3% (col. 9, lines 1-16). Said treatment obviates the need for scouring (abstract), but the reference clearly teaches working examples that have been scoured (Tables 1-11 and 13). Said scoured carpet samples have spin finish oil residues ranging from about 0.01-0.26% by weight of spin finish (i.e., oil residue) (col. 11, lines 62-65 and col. 12, lines 22-23). The carpets may be made of a wide variety of carpet fibers including polypropylene, nylon, acrylic, or wool (col. 11, lines 54-57) and may have a loop or cut pile (col. 11, line 60 and col. 12, line 2). Tables 1-9 and 11-13 show  $\Delta\Delta E$  values of less than 10.

Thus, Wang teaches the presently claimed invention with the exception of the addition of a hydrophobic crosslinking agent. However, the use of crosslinking agents in the art of stain resistant treatments is known in the art. For example, Rearick teaches a crosslinkable hydrophobic water and oil repellent fluorochemical, such as Mitsubishi's Repearl® F-35 can be applied to a fabric with the recommended crosslinking agent Repearl® MF, a blocked isocyanate reactive crosslinking finishing agent (Rearick '639, sections [0052], [0062], and [0142] and Rearick '072, sections [0052], [0062], and [0138]). Thus, it would have been readily obvious to one skilled in the art to select a fluorochemical repellent and hydrophobic crosslinking agent as

disclosed by the Rearick references for the fluorochemical repellent of Wang in order to provide a durable repellent finish. Therefore, claims 7, 10, 13-17, 50, and 51 are rejected as being obvious over the cited prior art.

Since the organic additives of Wang may have more than one function and more than one organic additive can be added, it is argued that the limitation to “two distinct component types which afford stain release properties” in claim 9 is met. Additionally, since the actual chemical compounds appellant employs for the separate stain release component overlap with the chemical compounds employed for the fluorochemical repellent and stain resist or stain blocking component, the limitation of claim 11 is similarly rejected.

B. Claims 7, 9-11, 13-17, 50, and 51 stand rejected under 35 USC 103(a) as being unpatentable over US 5,908,663 issued to Wang et al. in view of US 6,451,717 issued to Fitzgerald et al. as set forth in section 6 of the last Office Action.

The features of Wang have been set forth above. As discussed, Wang teaches the presently claimed invention with the exception of the addition of a hydrophobic crosslinking agent. However, the use of crosslinking agents in the art of stain resistant treatments is known in the art. For example, Fitzgerald discloses highly durable oil and water repellents for textiles comprising a polymer of 70-90% perfluoroalkyl monomer, 5-25% alkyl (meth)acrylate monomer, and 00.1-2.5% of additional monomer (abstract). The polymerization of said monomers is followed by addition of an aromatic blocked isocyanate (i.e., hydrophobic crosslinking agent) (abstract). Thus, it would have been readily obvious to one skilled in the art to select a fluorochemical repellent and hydrophobic crosslinking agent as disclosed by the

Fitzgerald reference for the fluorochemical repellent of Wang in order to provide a durable repellent finish. Therefore, claims 7, 10, 13-17, 50, and 51 are rejected as being obvious over the cited prior art.

Additionally, as noted above, since the organic additives of Wang may have more than one function and more than one organic additive can be added, the limitation of claim 9 is met. Furthermore, since the actual chemical compounds appellant employs for the separate stain release component overlap with the chemical compounds employed for the fluorochemical repellent and stain resist or stain blocking component, the limitation of claim 11 is similarly rejected.

C. Claim 12 stands rejected under 35 USC 103(a) is rejected over the cited Wang reference in view of the cited Rearick references as applied to claim 11 above and in further view of US 5,573,553 issued to McBride et al.

The Wang and Rearick references fail to teach the addition of a bleach resistant component. However, use of said component is known in the art. For example, McBride teaches a bleach resistant component suitable for treating carpet substrates (abstract). Thus, it would have been obvious to one of ordinary skill in the art to employ a bleach resistant component in the carpet treatment of Wang in order to prevent said carpet from discoloration due to bleaching. Therefore, claim 12 is rejected.

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D. Claim 12 stands rejected under 35 USC 103(a) is rejected over the cited Wang reference in view of the cited Fitzgerald reference as applied to claim 11 above and in further view of US 5,573,553 issued to McBride et al.

The Wang and Fitzgerald references fail to teach the addition of a bleach resistant component. However, use of said component is known in the art. For example, McBride teaches a bleach resistant component suitable for treating carpet substrates (abstract). Thus, it would have been obvious to one of ordinary skill in the art to employ a bleach resistant component in the carpet treatment of Wang in order to prevent said carpet from discoloration due to bleaching. Therefore, claim 12 is rejected.

#### **(10) Response to Argument**

A. Appellant traverses the rejection of the claims over the Wang and Rearick references by asserting that the proposed combination is contrary to the principle of operation of the Wang patent (Brief, page 5, 2<sup>nd</sup> paragraph). Specifically, appellant notes the Wang patent is directed to a method for treating carpets which allegedly obviates the need for scouring of said carpet to remove oil residues which attract soil, while appellant's invention is directed treatment of scoured carpet (Brief, page 5, 3<sup>rd</sup> paragraph). The inorganic particles of Wang's treatment composition adsorb the residual oils thereby reducing soiling or staining tendencies of the carpet (Brief, paragraph spanning pages 5-6). As such, appellant argues that the rejection proposed by the examiner would "require a change in (or a complete disregard of) the basic principle under which the method and compositions described in the Wang '663 patent were intended to operate"

by recasting Wang's express intent that the inorganic additive is used to absorb residual oils (Brief, page 6, 2<sup>nd</sup> paragraph).

The examiner respectfully disagrees. While Wang's intent is to obviate the need for scouring of the carpet, the reference clearly teaches working examples that have been scoured (Tables 1-11 and 13). It has been held that disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) (The invention was directed to an epoxy impregnated fiber-reinforced printed circuit material. The applied prior art reference taught a printed circuit material similar to that of the claims but impregnated with polyester-imide resin instead of epoxy. The reference, however, disclosed that epoxy was known for this use, but that epoxy impregnated circuit boards have "relatively acceptable dimensional stability" and "some degree of flexibility," but are inferior to circuit boards impregnated with polyester-imide resins. The court upheld the rejection concluding that applicant's argument that the reference teaches away from using epoxy was insufficient to overcome the rejection since "Gurley asserted no discovery beyond what was known in the art." 27 F.3d at 554, 31 USPQ2d at 1132.).

Wang's intent is to provide a treatment composition that produces acceptable levels of soil repellency and soil resistance on unscoured carpets, thereby saving the expense of scouring (col. 2, lines 7-34). While the addition of the inorganic particulate material to the soil resistant treatment composition enables the Wang invention, the reference clearly teaches that application

of said treatment composition to scoured carpets produces even better soiling resistance and repellency than on the unscoured carpets. Note Examples 1-4 and C1-C6, Table 1 of the reference (col. 15, line 64—col. 17, line 9). The table shows, as measured by decreasing  $\Delta E$  and  $\Delta\Delta E$  values:

- a. the unscoured, untreated carpet sample (C1) is the least soil resistant,
- b. the unscoured, treated carpet samples (Ex. 1-4) show improved soiling properties,
- c. the scoured, untreated carpet sample (C6) shows even better soiling properties, and
- d. the scoured, treated carpet samples (C2-C5) show the best soiling properties.

So not only does Wang teach working examples of scoured carpets, *the reference clearly teaches that appellant's invention directed to scoured and treated carpets provides the best soil resistant properties*. Despite these finding, Wang concludes that the treatment composition applied to unscoured carpet produces acceptable results. Thus, Wang's intent is not to provide the greatest soil repellency or resistance possible but to provide acceptable soil repellency and resistance without the time- and energy-consuming, air- and water-polluting, and expensive step of scouring (Wang, col. 2, lines 7-34). In other words, appellant has asserted no discovery beyond what is known in the prior art. Therefore, appellant's argument that the rejection is contrary to the principle of operation of the Wang reference is found unpersuasive.

Appellant also traverses the rejection by asserting impermissible hindsight reconstruction by the examiner (Brief, page 7, 2<sup>nd</sup> - 4<sup>th</sup> paragraphs). This argument is also unpersuasive since it neglects to consider the teachings of Wang as described above. The examiner need not "point to any other reference or knowledge generally available to those of ordinary skill in the art teaching that inorganic additives such as those disclosed in the Wang '663 patent can function in a manner

other than that described in the patent (i.e., as an adsorbent for the residual oils and spin finish present on the carpet fibers)" (Brief, page 7, 3<sup>rd</sup> paragraph). In addition to the express teachings of Wang, appellant's train of thought here is erroneous since appellant does not assert or claim the inorganic particles serve a different function or purpose than that of Wang. As such, the examiner has no burden to provide a teaching thereto. Therefore, appellant's arguments are found unpersuasive and the rejection of claims 7, 9-11, 13-17, 50, and 51 under 35 USC 103(a) as being unpatentable over US 5,908,663 issued to Wang et al. in view of US 2002/0064639 and/or US 2004/0058072, both issued to Rearick et al. stands.

B. Regarding the rejection of claims 7, 9-11, 13-17, 50, and 51 over Wang in view of Fitzgerald, appellant provides no new arguments but rather reiterates the arguments with respect to the principle of operation of the Wang reference and improper hindsight reasoning (Brief, page 8, 2nd paragraph - page 11, 1st paragraph). [Note appellant does not necessarily argue the combination of Rearick with Wang or the combination of Fitzgerald with Wang with respect to the obviousness of employing a crosslinking agent, as taught by Rearick or Fitzgerald, in the Wang invention.] Since appellant's arguments have been found unpersuasive for the reasons set forth above in the Wang and Rearick rejection, the rejection of the claims over Wang in view of Fitzgerald also stands.

C. Regarding the rejection of claim 12 over Wang in view of Rearick and in further view of McBride, appellant provides no new arguments but rather reiterates the same arguments with respect to the principle of operation of the Wang reference and improper hindsight reasoning

(Brief, page 11, 2nd paragraph - page 14, 1st paragraph). [Note appellant does not specifically argue the obviousness of the combination of McBride with the Wang and Rearick references.] Since appellant's arguments have been found unpersuasive for the reasons set forth above in the Wang and Rearick rejection, the rejection of claim 12 over Wang in view of Rearick and in further view of McBride also stands.

D. Regarding the rejection of claim 12 over Wang in view of Fitzgerald and in further view of McBride, appellant provides no new arguments but rather reiterates the same arguments with respect to the principle of operation of the Wang reference and improper hindsight reasoning (Brief, page 14, 2nd paragraph - page 17, 1st paragraph). [Note appellant does not specifically argue the obviousness of the combination of McBride with the Wang and Fitzgerald references.] Since appellant's arguments have been found unpersuasive for the reasons set forth above in the Wang and Rearick rejection, the rejection of claim 12 over Wang in view of Fitzgerald and in further view of McBride also stands.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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